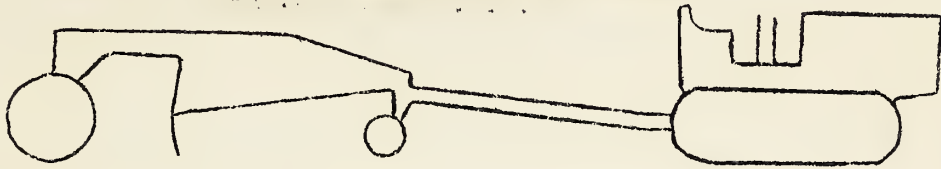


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# CONSTRUCTION



## HINTS

UNITED STATES DEPARTMENT OF AGRICULTURE, FOREST SERVICE

Vol. 1      Washington, D. C.      July 13, 1935.      No. 5.

Most of the articles in this issue originated in Region 8.  
That is making a start toward a better "Construction Hints." Thanks.

H.L.F.

The illustrations shown in this issue need very little explanation:-

Timber Hitch: used for hauling and lifting logs and poles.  
It can easily be loosed when the strain is taken off, but  
will not slip under a pull.

Hawser Bond: used for joining two large ropes or cables.  
Each end is seized to its own standing part.

Bowline: forms a loop that will not slip.

Running Bowline: a further adaptation of the bowline

A considerable amount of bank stabilization is being done in  
Region 8. It appears that honeysuckle vines are generally giving the  
best results.

(Over)

ATTACHMENT HANDLE

FOR

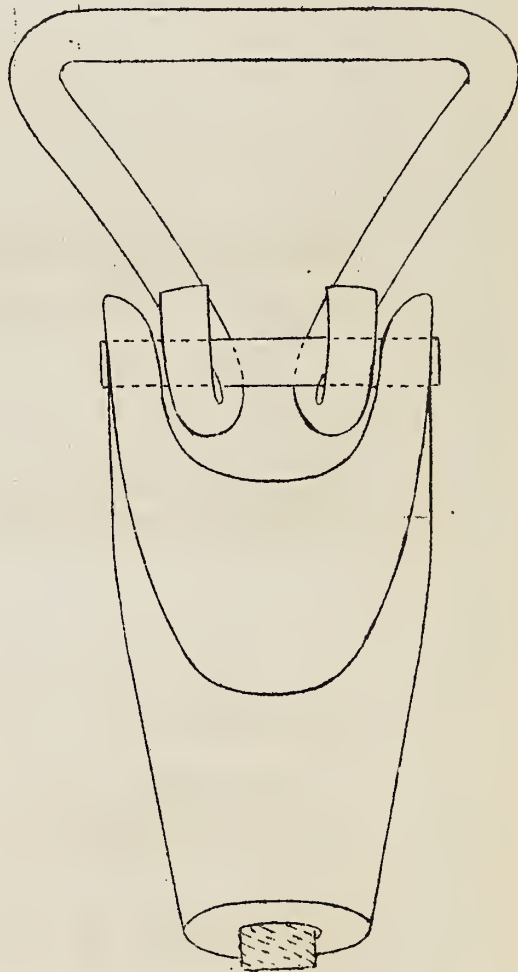
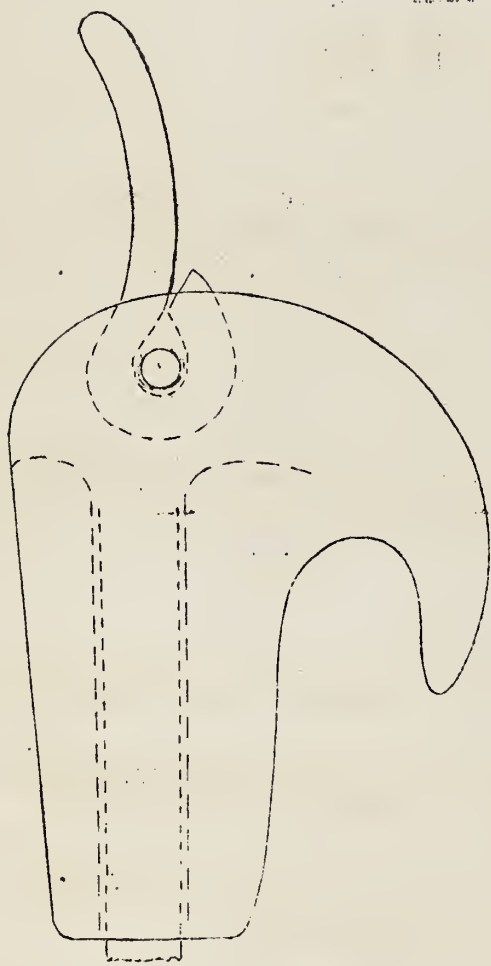
DORSEY HOOK

Designed by: R. H. Mawhinney, Acting Surveyor

Original Idea and made by: Pete Locke, Asst.

Leader and Blacksmith, V.C.C.C. Co. 2418

E.C.W. Camp, Fla. P-70



PILE DRIVER

Region 8 has designed a pile driver with folding leads and a pair of detachable wheels. This outfit can be quickly set up or taken down and moved from place to place by towing behind a truck. Any Region interested may secure detailed plans from the Regional Office at Atlanta.

Region 8 has an explosive specialist who travels from camp to camp and aids the powder men in the use of explosives. Judging from present indications this will result in a considerable saving in the amount of explosives used, as well as in better work on the part of the powder men.

The following articles were written by A. L. Anderson of the Washington Office:

#### LOCATION OF TRUCK TRAILS

The truck trail locator should endeavor to secure the best possible alignment and grade within the allowable cost limit. If a certain curve conforms to the minimum radius specified for the project, that fact alone does not make it satisfactory. If a larger radius curve could have been constructed at no increase in cost, this should have been done.

Though a project may be classified as low service, the locator should get the best possible combination of alignment and grade without increasing the cost above that necessary to comply with the specifications. Study the location. Do not be satisfied simply because you comply with the specifications if you can exceed them for the same cost.

#### SIDE DITCHES

Ordinarily side ditches on a road are constructed for two purposes; (1) drainage and (2) borrow pits when fill material is required.

From the standpoint of the service value of the road the ditch is very undesirable, but is a "necessary evil". Therefore, ditches should not be made any deeper than necessary. When they are deep enough to serve the drainage purpose any additional material required for fill should be taken by widening the ditch outwards rather than by making it deeper.

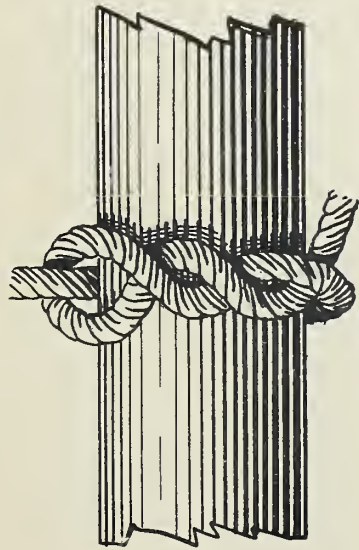
Grader men should regulate the depth of ditch according to the need for it. When going over the top of a hill on a turnpike section the ditch should be only enough to define the road.

Do not set your blade for a foot or two and go along with the same depth over hills, swamps and dry flats.

10.  $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

• *Journal of the American Medical Association*, 1997; 277: 1033-1037

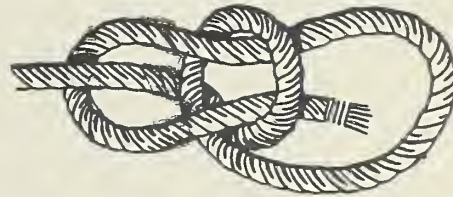
*Journal of Management Studies*, 19(6), 701-718.



Timber Hitch



Hawser Bend



Bowline



Running Bowline

